a sensor for determining the movement of said steering shaft, and a circuit for evaluating the measuring signals of the sensor;

coded microstructures are provided on the steering shaft and/or on a device that is connected to the steering shaft in a non-positive manner, that a sensor is provided, which detects the microstructures and outputs associated measuring signals, and

that an electronic circuit is provided, to which the measuring signals of the sensor are fed and which outputs electronic signals for steering.

2. (Amended Once) The steering device of claim 1, wherein the microstructures form a succession of sequences arranged in an axial direction on the steering shaft and/or the device non-positively connected thereto.

3. (Amended Once) The steering device of claim 2, wherein each sequence comprises multiple and/or single structures arranged spatially in an azimuthal and/or axial direction and containing individual or block-type coding.

4. (Amended Once) The steering device of claim 2, wherein the sequences contain bit coding.

5. (Amended Once) The steering device of claim 2, wherein a plurality of sequences are combined in a block, the blocks being distinguishable from each other by coding.

6. (Amended Once) The steering device of claim 2, wherein the sequences arranged in an axial direction are present in redundant form, offset parallel more than once over the periphery of the steering shaft (20) and/or device.

7. (Amended Once) The steering device of claim 1, wherein the microstructures are in complementary form.

8. (Amended Once) The steering device of claim 1, wherein the smallest details of the microstructures have lateral dimensions of 5 nm to 5 mm.

9. (Amended Once) The steering device of claim 8, wherein the smallest details of the microstructures have lateral dimensions of 1 μm to 1 mm.

10. (Amended Once) The steering device of claim 1, wherein the microstructures have a thickness of 5 nm to 1 mm.

11. (Amended Once) The steering device of claim 10, wherein the microstructures have a thickness of 100 nm to 100 μm.

12. (Amended Once) The steering device of claim 1, wherein the microstructures have a level surface and are levelled by a planarizing method.

13. (Amended Once) The steering device of claim 1, wherein the microstructures are built up from or covered with tribological hard-material layered systems.

14. (Amended Once) The steering device of claim 13, wherein the hard-material layered systems are single films or multi-layer films of TiN and/or TiAlN and/or TiCN films and/or aluminium oxide films and/or amorphous diamantine hydrocarbon films with and without metal doping and/or amorphous CN films and/or cubic boron nitride films and/or diamond films.

15. (Amended Once) The steering device of claim 1, wherein the sensors are arranged in the form of a line and/or array.

16. (Amended Once) The steering device of claim 1, wherein the sensors are optical sensors.

17. (Amended Once) The steering device of claim 16, wherein the sensors are optical fibreglass sensors.

18. (Amended Once) The steering device of claim 17, wherein the sensors are fibre-optical double or multiple sensors.

19. (Amended Once) The steering device of claim 16, wherein the microstructures are in the form of a reflection hologram.

20. (Amended Once) The steering device of claim 1, wherein the sensors are magnetic sensors.

21. (Amended Once) The steering device of claim 20, wherein the magnetic sensors are in a linear arrangement for reading a multi-bit code, particularly an 8-bit code.

22. (Amended Once) The steering device of claim 20, wherein the sensor has a reading head with polar structures arranged on an arc matching the diameter of the steering shaft.

23. (Amended Once) A method of making a steering device including a steering shaft, the method comprising the steps of:

applying coded microstructures on the steering shaft or on a device non-positively connected to the shaft using thin film methods, and that structuring is effected by photo-lithographic methods;

detecting the microstructures and outputting an associated measuring signal; and

evaluating the measuring signal to determine appropriate action for steering control.

24. (Amended Once) The method of claim 23, wherein the thin-film method is a PVD and/or CVD method.

25. (Amended Once) The method of claim 23, wherein the microstructures are formed by a dry etching process and/or a wet-chemical etching process.

26. (Amended Once) The method of claim 23, wherein the microstructures are produced by a laser beam process.

27. (Amended Once) The method of claim 26, wherein the laser beam process used is a direct-writing laser ablation process and/or a laser-lithographic process and/or a direct-action mask-related laser-structuring process.

REMARKS

By way of this Preliminary Amendment, the English translation of the Specification has been amended to conform to U.S. Practice and to correct other informalities due to translation. A Substitute Specification excluding claims under 37 C.F.R. 1.125(b) is submitted herewith accompanied by a marked-up copy of the specification showing the matter being added to and the